

What is claimed is:

1. In a laser scanning microscope, an arrangement comprising:
a micro-mirror arrangement acting as a confocal pinhole diaphragm in a detection beam path; and
a detector that receives a detection beam from the micro-mirror arrangement.
2. The arrangement according to claim 1, wherein the micro-mirror arrangement is programmable with respect to a size and shape of the pinhole on the micro-mirror arrangement.
3. The arrangement according to claim 1, wherein the micro-mirror arrangement is programmable with respect to a lateral position of the pinhole on the micro-mirror arrangement.
4. The arrangement according to claim 1, wherein the micro-mirror arrangement is programmable with respect to a size of the pinhole on the micro-mirror arrangement in synchronization with a detected spectral band.
5. The arrangement according to claim 1, further comprising:
a dispersive element positioned in the detection beam path between the micro-mirror arrangement and the detector, and operable to spatially disperse a detection beam from the micro-mirror arrangement;
wherein the micro-mirror arrangement is programmable with respect to a size, shape and lateral position of the pinhole on the micro-mirror arrangement in synchronization with a detected spectral band.
6. The arrangement according to claim 1, further comprising:
a second micro-mirror arrangement and a second dispersive element acting together as a beam splitter for wavelength-selective coupling-in of an

excitation beam in the direction of an object under study and wavelength-selective coupling-out of a detection beam in the direction of the detector.

7. In a laser scanning microscope, an arrangement comprising:
a micro-mirror arrangement acting as a slit pinhole in a detection beam path so as to receive a scanned line of an object; and
a detector that receives the scanned line from the micro-mirror arrangement.
8. The arrangement according to claim 7, further comprising
a dispersive element positioned in the detection beam path between the micro-mirror arrangement and the detector;
wherein the detector is a two dimensional array of detector elements such that the scanned line is imaged in one dimension of the detector and the spectrum of the scanned line is imaged in the other dimension of the detector.
9. In a laser scanning microscope, an arrangement comprising:
a dispersive element positioned in a detection beam path and operable to spatially disperse a detection beam coming from an object under study;
a micro-mirror arrangement operable to switch selected wavelengths of the dispersed detection beam; and
a detector that receives the switched wavelengths of the spatially dispersed detection beam.
10. In a laser scanning microscope, an arrangement comprising:
an LCD arrangement acting as a confocal pinhole diaphragm in a detection beam path; and
a detector that receives a detection beam from the LCD arrangement.
11. In a laser microscope, a combination comprising:
at least one dispersive element disposed in a detection beam path;
and

a selectively switchable transmission diaphragm in the detection beam path.